In this Response, claims 1-11 are canceled, new claims 12-22 are added to afford a differing scope of protection for the invention to which the applicant is entitled, and remarks are provided.

B. Defective Oath

The Examiner requests a new Declaration, which is attached.

C. Drawings

The Examiner objects to the drawings in two regards. First, he requests separate drawings showing different foil examples recited in dependent claim 2. This claim has been canceled.

The drawings are also objected to on the ground that they fail to show two heat exchangers associated respectively with each of the two extraction fans, as recited in canceled claim 9, generally corresponding to new claim 21.

Attached is a Letter to the Examiner requesting the addition of a new FIG. 12 corresponding to new claim 21. New Fig. 12 is derived from Fig. 1 and the related description, see e.g., page 11, lines 9-12 of the application as filed, and shows two heat exchanges associated, respectively, with the two extracted fans 44 and 46. Each heat exchanger has its own box and its own entry fan 38.

D. Objections to the Specification Including Claims

In numbered paragraphs 4-9, the Examiner raises various objections to the claims. It is believed these matters have been attended to in the amended specification herein.

E. Rejection of Claims 1-5 and 7 Under 35 U.S.C. §102

These claims are rejected as being anticipated by the Oberschmid reference, which is cited for disclosing "a flexible foil heat exchanger having a cross-section of undulating shape for two fluid flows." Office Action, Para. 11.

As noted above, claims 1-11 are canceled. For the following reasons, however, it is respectfully submitted that the present invention, as recited by new claims 12-22 was neither anticipated nor rendered obvious by the cited reference.

Oberschmid discloses a heat exchanger designed particularly for aerating animal stables. Such a heat exchanger is designed to be horizontally attached to the ceiling of the stable to allow heat exchange between a stream of warm air being moved outside the stable and a cold air stream being moved inside the stable. The heat exchanger has flexible walls delimiting inflated channels, the cross-section of which varies as a function of the difference of pressure between the two air streams. The cross-section may also be controlled, in some embodiments, by a cord or a similar device.

The heat exchange unit of the present invention includes a box which has substantially rigid outside walls. In this regard, the sole independent claim 12 recites that the "box" is "provided with substantially rigid walls defining fluid passages".

Inside the box of the invention, there is a thin flexible foil forming undulations capable of being deformed as a function of the respective pressures of the stream of fresh air and the stream of stale air. The flexible foil can be easily removed to be cleaned, and to be easily re-installed inside the box once cleaned. In this regard, claim 12 recites a "removable thin flexible foil". It is not believed the cited German reference lends itself to practical and easy removal, cleaning and reintroduction of the channels therein.

Furthermore, the instant heat exchange unit may be placed in any position, particularly in a vertical position (see claim 17), inside a building, whereas the heat exchanger of the German reference is designed to be horizontally placed under a ceiling.

F. Information Disclosure Statement

Attached is a Statement providing a further reference which is discussed in the present application.

This Statement relates to Applicant's earlier work, which is shown in French Patent No. 86 17714, discussed at page 1 of the present application, which patent corresponds to U.S. Patent No. 5,036,906, also attached.

III. CONCLUSION

In light of the above amendments and remarks, it is respectfully submitted that claims 12-22 are in condition for allowance.

If there are any additional fees associated with this Response, please charge same to our Deposit Account No. 19-3935.

Finally, if there are any formal matters remaining after this Response, the undersigned would appreciate a telephone conference with the Examiner to attend to these matters.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 1/28/03

By: _____
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VERSION WITH MARKINGS TO SHOW CHANGES MADE -
37 C.F.R. §121(b) and/or (c)

IN THE WRITTEN DESCRIPTION

Please AMEND the written description as follows:

On page 1, before the first heading, please insert the following headings on separate lines:

-- SPECIFICATION --

-- TITLE --.

On page 1, before the first paragraph, please insert the following headings on separate lines:

-- BACKGROUND OF THE INVENTION --

-- 1. Field of the Invention -- .

On page 1, first paragraph, please amend as follows:

The invention relates to an independent heat exchange unit designed to be placed inside a building to provide, for example, [the] ventilation and/or air conditioning of a part or locality inside this building.

On page 1, second paragraph, please amend as follows:

It relates more particularly to an independent heat exchange unit comprising a box provided with walls bounding two fluid passages having an undulating cross section and means for circulating air and capable of causing counter current circulation in the two fluid passages of, on the one hand, a stream of fresh air drawn from outside the building and, on the other hand, a stream of stale air drawn from inside the building.

On page 1, before the third paragraph, please insert the following heading:

-- 2. Description of the Related Art --.

On page 2, first paragraph, please amend as follows:

In this known unit two fluid passages, also called channels, <u>are</u> formed inside the box[,]<u>and</u> are separated by an undulating wall, generally a metallic wall, which does not always

make for easy cleaning.

On page 2, between the first and second paragraphs, please insert the following heading:

-- SUMMARY OF THE INVENTION --.

On page 3, first paragraph, please amend as follows:

This material can be impervious to water [vapour] vapor if one does not wish any interaction between the two air streams, or equally well it could be permeable to water [vapour] vapor such as to allow the recovery of a part of the water [vapour] vapor contained in the stale air discharged outside the building.

On page 3, fourth paragraph, please amend as follows:

In a preferred manner the means for circulating the air comprise at least one entry (or admission) fan for introducing, into the interior of the building, a stream of fresh air taken from outside, and at least one evacuation fan for extracting, to the outside of the building, a steam of stale air coming from inside.

On page 4, between the third and fourth paragraphs, please insert the following heading:

-- BREIF DESCRIPTION OF THE DRAWINGS -- .

On page 5, between the third line and the first full paragraph, please insert the following:

-- - Figure 12 is a front view of a heat exchange unit with two separate heat exchangers, each with two fans --.

and the following heading on the next line

-- DESCRIPTION OF THE EMBODIMENTS --.

On page 7, first paragraph, please amend as follows:

The material from which the foil 30 is made can be either impervious to water [vapour] vapor or permeable to water [vapour] vapor with the aim of recovering some of the water [vapour] vapor contained in the air extracted. This is of interest in maintaining a certain degree of moisture content within the building.

On page 7, fourth paragraph, please amend as follows:

Furthermore there are mounted inside the box 12 two fans, namely a fan 44 in the upper part and a fan 46 in the lower part (Figure 1). The fan 44 is mounted underneath the top wall 16, which is provided with an opening 48 to allow passage of the stale air AV. In addition the fan 46 is situated above the bottom wall 18, which is provided with an opening 50 allowing passage of the stale air AV.

On page 11, last paragraph, please amend as follows:

Equally one could envisage, as shown in Fig. 12, constructing the box in two parts, each forming a heat exchanger also having a flexible foil and one of the extraction fans. In this case each heat exchanger could have its own box and its own entry fan and its own extraction fan.